



Water-Borne Disease

Water can spread illness when it is contaminated by disease-causing organisms. Water-borne diseases can infect humans and animals that drink or recreate in contaminated water.

Water-Borne Disease Information

Geographic Distribution

Water-borne diseases are found worldwide.

Hosts and Transmission

Water-borne disease is found in lakes or streams that have been infected by animal or human feces or urine. Many water-borne diseases are also found in contaminated soil, food, and surfaces.

Drinking untreated water from springs, streams, or lakes while hiking or camping in the parks could put you at risk for infection.

Signs and Symptoms

Water-borne diseases can cause diarrhea in humans and animals. Symptoms in humans typically occur within 10 days of infection and can include:

- Diarrhea
- Stomach aches or pain
- Dehydration
- Nausea and vomiting
- Gas
- Weight loss

Prevention and Control

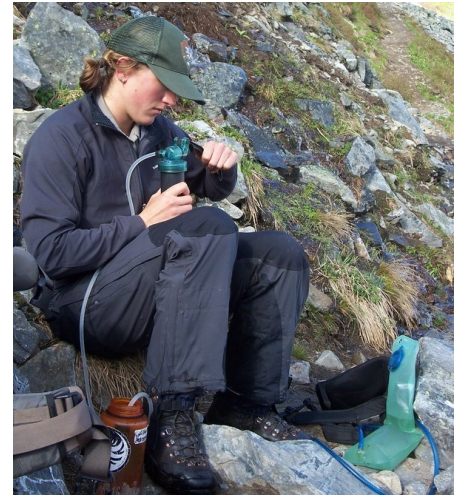
You can lower your risk of getting water-borne illness while visiting the parks by:

- Filtering or boiling fresh water before drinking.
- Washing your hands before handling or eating food and after using the toilet.
- Cleaning up after pets and keeping them on a leash.
- Viewing animals in the wild from a safe distance and not handling wild animal feces.

Testing and Treatment

Some animals and humans with water-borne illness can get better on their own without treatment. Drinking lots of fluids prevents dehydration from diarrhea.

If you think you have the symptoms of water-borne disease and have been exposed to potentially contaminated soil, food, or water, consult your healthcare provider.



CREDIT: NPS/NORTCH CASCADES NATIONAL PARK

Prevent water-borne illness by filtering or boiling fresh water before drinking.



CREDIT: NPS/YELLOWSTONE NATIONAL PARK/LEWIS RIVER CHANNEL/UNKNOWN PHOTOGRAPHER/1989

Water-borne disease can be found in lakes or streams that are contaminated by infected animal or human feces or urine.



One Health & Water-Borne Disease

Human impacts on the environment, including land development and climate change, can contaminate water and decrease the ability of ecosystems and wetlands to naturally filter water. Some of these changes to the land, air, and water promote the transmission and spread of water-borne diseases. By protecting natural environments and their ecological properties and processes, we can help protect ourselves from disease – this is One Health in action.

Water-Borne Diseases

Cryptosporidium

Cryptosporidium, which causes the diarrheal disease cryptosporidiosis or “Crypto”, is a tiny parasite that infects humans and animals worldwide.

Cryptosporidium is found in water, soil, and food, as well as on surfaces that have been contaminated by feces of an infected person or animal.

The major reservoirs for *Cryptosporidium* in humans are humans, cattle, and sheep. It is also found in lakes or streams that have been infected by human or animal feces. Animals and humans with cryptosporidiosis often get better on their own without treatment in a few days.

Giardiasis

Giardia is a tiny parasite that is found worldwide in water, soil, and food as well as on surfaces that have been contaminated by feces of an infected person or animal. Giardiasis is the most common water-borne disease in the United States.

Humans are the major reservoir for human infections, although other strains from animals may infect humans occasionally. It is spread from person-to-person by hand-to-mouth transfer of cysts from the feces of an infected individual.

Giardia is also found in lakes or streams that have been infected by human or animal feces. Humans with *Giardia* often get better on their own within a few weeks.

Leptospirosis

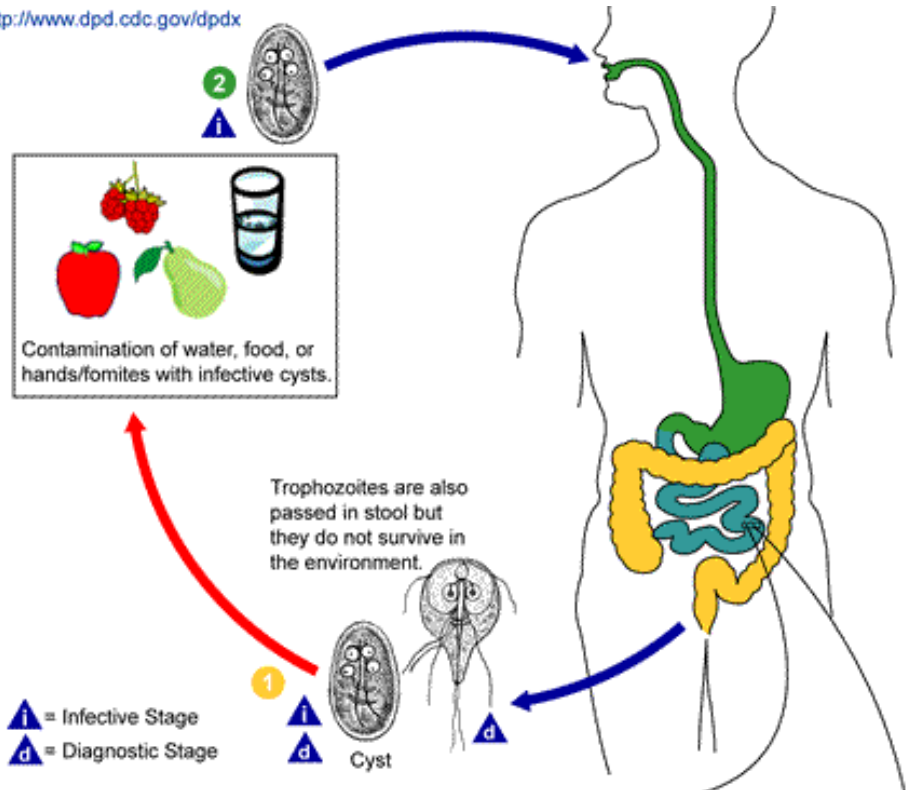
Leptospirosis is a bacterial zoonotic disease that affects humans and animals, most often occurring in tropical or subtropical regions.

While most infected individuals do not show any signs or symptoms, the bacterial disease can cause a wide range of symptoms, similar to other water-borne diseases but also including fever, chills, headache, jaundice, and red eyes.

Without treatment the disease can lead to kidney damage, meningitis, liver failure, and respiratory distress.

Leptospira is spread through the urine of infected animals and is associated with recreational water sports that take place in contaminated lakes and rivers.

<http://www.dpd.cdc.gov/dpdx>



Cysts are responsible for transmission of giardiasis. Infection occurs when cysts in contaminated water are ingested.

Salmonella

Salmonellosis is a bacterial infection that is usually caused by eating foods contaminated with animal feces. The bacteria can also contaminate water.

These are often foods from animals, such as beef, poultry, milk, or eggs; however, any food may become contaminated. Food may also become contaminated if an infected food handler fails to wash their hands with soap after using the bathroom. Additionally, *Salmonella* can also be found in pet feces, particularly reptiles and young birds.

Always wash your hands immediately after handling animals and also after contact with raw meat or poultry. Other prevention methods include cooking poultry, beef, and eggs thoroughly and not consuming foods containing raw eggs, or raw (unpasteurized) milk.

E. coli

E. coli are a large and diverse group of bacteria. While most strains are harmless, others can make you sick with diarrhea, stomach cramps, and vomiting. Symptoms are usually resolved within 5–7 days.

E. coli infections can be prevented by thoroughly washing hands after using the bathroom, after changing diapers and before preparing or eating food.

More Information

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<http://www.cdc.gov/nceid/dfwed/waterborne/>